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Heavy rain and gales 18–20 November 2009

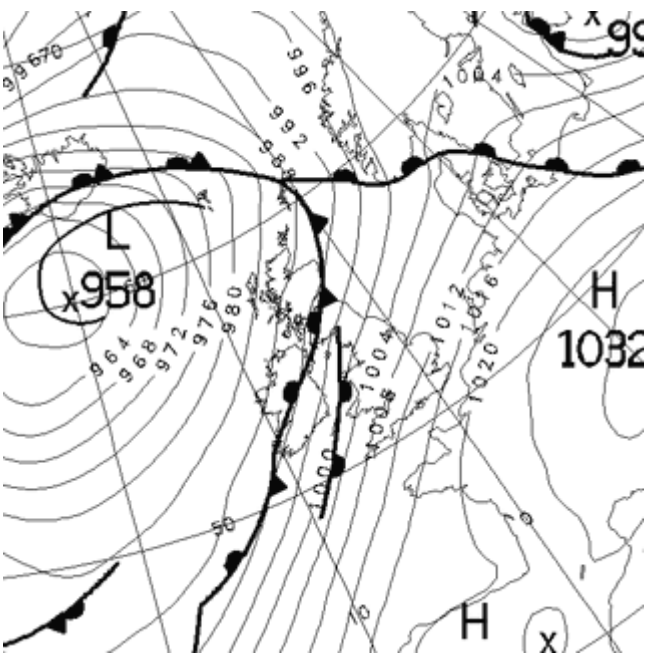
23 November 2009

Background

Heavy rain affected many parts of north-west Britain during 18, 19 and 20 November 2009, and this rain led to widespread flooding. This was caused by an Atlantic weather front becoming almost stationary across Northern Ireland, Cumbria and south-west Scotland.

This front and the south-westerly winds associated with it drew very warm, moisture laden air northwards from the Azores region. The rain was intensified by the mountainous terrain of Cumbria and southwest Scotland resulting in record rainfall totals.

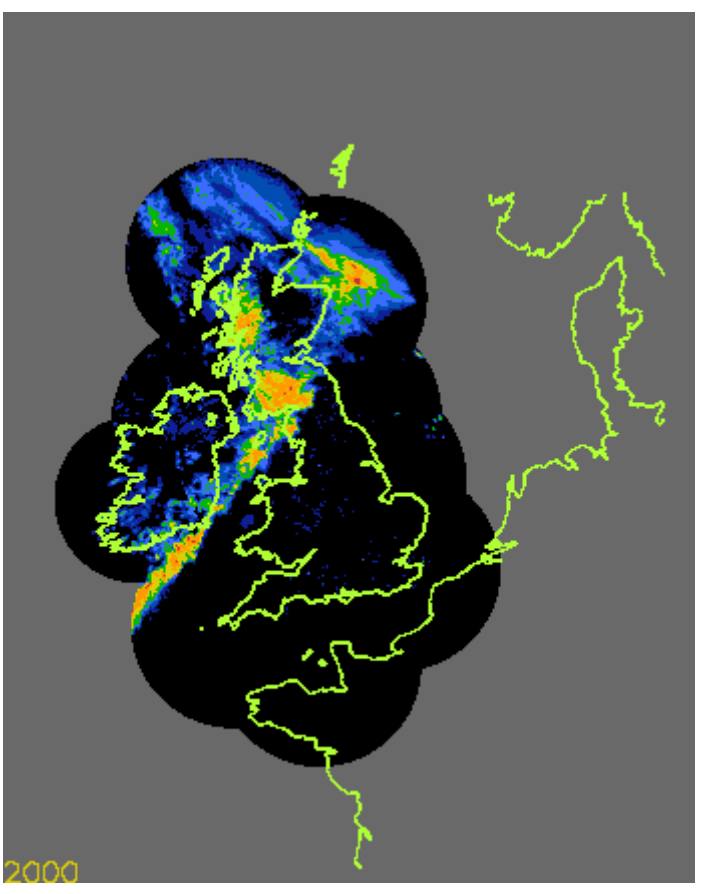
Analysis chart valid 0600 UTC Thursday 19 November 2009



Weather data

In Cumbria, 372.4 mm of rain fell at Seathwaite and 361.4 mm of rain at Honister between 0800 on Wednesday 18 November and 0400 on Friday 20 November. Provisionally, the 24-hour total at Seathwaite (ending 0045 on Friday 20 November) of 314.4 mm is a UK record for a single location in any given 24-hour period.

Hourly rainfall images 2000 Wednesday 18 to 0600 Friday 20 November 2009



November rainfall totals in millimetres

	17–18 November (08–08 UTC)	18–19 November (08–08 UTC)	19–20 November (08–08 UTC)	3 day total	1–20 November	November average (1971–2000)
Cumbria						
Shap	55.4 mm	50.2 mm	91.2 mm	196.8 mm	444.2 mm	196 mm
St Bees Head	23.4 mm	13.6 mm	40.6 mm	77.6 mm	140.8 mm	100 mm
Keswick	41.8 mm	39.4 mm	107.8 mm	189.0 mm	375.0 mm	182 mm
Warcop	28.6 mm	13.4 mm	20.8 mm	62.8 mm	163.4 mm	101 mm
Walney Island	17.6 mm	8.0 mm	47.6 mm	73.2 mm	169.4 mm	106 mm
Carlisle	19.6 mm	7.8 mm	14.4 mm	41.8 mm	137.0 mm	77 mm
Dumfries and Galloway						
Eskdalemuir	17.4 mm	34.4 mm	89.8 mm	141.6 mm	298.6 mm	168 mm
Dundrennan	16.4 mm	14.8 mm	21.8 mm	53.0 mm	192.2 mm	109 mm
Drumalbin	6.4 mm	17.6 mm	23.8 mm	47.8 mm	143.6 mm	91 mm
West Freugh	9.2 mm	6.4 mm	7.2 mm	22.8 mm	128.8 mm	118 mm
Ayrshire						
Prestwick	10.2 mm	14.6 mm	23.2 mm	48.0 mm	129.6 mm	100 mm

Impacts

The most widespread impacts were in Cumbria, where more than 1,300 homes were affected by flooding, and many more were left without power and water. A number of bridges were swept away and others were closed pending inspection by structural engineers. There was severe travel disruption on both roads and railways. The worst affected town was Cockermouth where water levels reached 2.5 m.

- More than 200 people rescued in floods in Cumbria town (BBC News)
- Flood victims face further chaos (BBC News)

Parts of Scotland were also badly affected with some property flooding and widespread travel disruption in Dumfries and Galloway and the Borders.

- Flooding follows wettest November day on record (BBC News)

There was also some flooding in parts of north Wales, with travel disruption.

How we did

On Monday 16 November we issued an Advisory of severe weather in western Britain for Thursday 19 November, and this was upgraded to an Early warning of severe weather on Tuesday 17 November for parts of north-west England and south-west Scotland. After discussion with the Environment Agency, SEPA and the Flood Forecasting Centre this was upgraded again to an Early warning of Extreme weather in Cumbria and south-west Scotland on Wednesday 18 November. Throughout the week our Public Weather Service advisors talked to emergency responders about the upcoming heavy rain, helping them to put emergency procedures into place to prepare for the floods. The advisors were in constant contact with responders during and after the flood, as more rain was forecast. We also kept the Cabinet Office and senior government officials briefed on the situation.

Next steps

The unsettled weather is continuing, so there is more rain forecast for many parts of the United Kingdom. More warnings have been issued, and we will continue to ensure the United Kingdom is as prepared as it can be for any further impacts.

Please note that all values and statements are provisional and subject to change.